

Radicom Research, Inc.

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<http://www.radi.com/>**Motion Detection Low Power 24 GHz Radar Sensor Module— RRT242****USB / UART Interface**

Radicom's RRT242 24GHz-ISM-Band low power & distance sensing Bluetooth 5.3 radar module is designed with antenna offering Field of View x-y:140°/y-z: 70° directional range motion detection that supporting different application requirements. It applies the USB or UART converter interface connecting to radar module with simple connectivity to complete software development environment.

The **RRT242** hosts with MCU connection through SPI interface for simple setting and data acquisition that goes with multi sensing modes such as motion detecting, distance detecting and angel detection for your wider area range coverage of detection options.

It as well as features easy installation without making any holes and can just right simply install this module on your terminal application device easily and quickly.

Models:

- RRT242: Rader Module with mini USB connector
- RRT242-A: Rader Module with 2.54 Double rows pin header
- RRT242-B: Rader + Bluetooth 5.3 Module with mini USB connector

Application:

- Outdoor lighting
- Home Appliance
- Tab Water Sensing
- Smart Home
- IoT Internet of Thing
- Door Bell
- Cockpit

Features:

- Radar-based motion detector working in the 24GHz - ISM - Band
- BT connection via UART or USB for setting & result acquisition
- Detection of distance/angle and velocity of moving object
- The min. chirping duration is 0.1ms
- Fully Integrated RFIC with ARM Cortex-M4 processor
- Extended temperature range from -40°C up to +85°C

**RRT242****RRT242-A****RRT242-B**

- ID Friendly
- Tx/Rx Channel:1-Tx/2-Rx
- FOV: x-y:140°/y-z: 70°
- Power Consumption: RRT242-B Typical 80mA
- Small size: RRT242 : 1.16" x 1.70" x 0.24" (LxWxH)
RRT242-A : 1.44" x 1.02" x 0.24" (LxWxH)
RRT242-B : 1.16" x 1.70" x 0.24" (LxWxH)
- Customized firmware to apply in different application
- Intelligent Sequencer to control sensor mode & duty cycle
- Built-in autonomous 1D sensing algorithm without any external MCU calculations
- All-in-One & easy to detect Presence/Distance+2D Location
- FCC/IC/CE Certified (pending)
- RoHS 3 compliant

Support:

- Wider detection area, Lower Power, Small-sized Package
- Baud rates up to 115200
- Robust Performance
- Bandwidth: up to 250MHz